

Docket No. 000560.00125

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Tateki JOZAKI et al.

SERIAL NO: 10/670,393

GAU:

Unassigned

FILED: September 26, 2003

EXAMINER:

Unassigned

FOR: SPEED CHANGE RATIO CONTROL UNIT FOR CONTINUOUSLY VARIABLE TRANSMISSION

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

COMMISSIONER FOR PATENTS

P.O. BOX 1450

ALEXANDRIA, VA 22313-1450

SIR:

Applicant(s) wish to disclose the following information.

REFERENCES

- ☒ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check is attached in the amount required under 37 CFR §1.17(p).

RELATED CASES

- ☐ Attached is a copy of applicant's pending application(s) or issued patent(s) which may be related to the present application. These documents are listed on form PTO-1449, also attached.
- ☐ A check is attached in the amount required under 37 CFR §1.17(p).

CERTIFICATION

- ☐ Each item of information contained in this information disclosure statement was cited for the first time in any communication from a foreign patent office in any counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited for the first time in any communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.
- ☒ This Information Disclosure Statement is being filed within three months of the filing date of the subject patent application.
- ☒ This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits.

PETITION

- ☐ Applicant(s) hereby request consideration of the attached information. A check is attached in the amount of the Petition fee required under 37 CFR §1.17(i)(1).

DEPOSIT ACCOUNT

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check is enclosed herewith, or credit any overpayment to deposit account number 23-2185. A duplicate copy of this sheet is enclosed.

Respectfully Submitted,

BLANK ROME LLP

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27557

PATENT TRADEMARK OFFICE

Michael D. White  
Attorney of Record  
Registration No. 32,795

Date: December 23, 2003

08/01



**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:	)	
	)	
Tateki JOZAKI et al.	)	Group Art Unit: <i>Unassigned</i>
	)	
U.S. Serial No.: 10/670,393	)	Examiner: <i>Unassigned</i>
	)	
Filed: September 26, 2003	)	
	)	
For: SPEED CHANGE RATIO CONTROL	)	Docket No. 000560.00125
UNIT FOR CONTINUOUSLY VARIABLE	)	
TRANSMISSION	)	

**STATEMENT OF RELEVANCY OF JAPANESE REFERENCES**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Date: December 23, 2003

Sir:

The following patent documents are cited in the Information Disclosure

Statement submitted with this statement:

1. Japanese Patent Application (Laid-open Kokai) JP09-144861  
Title: INITIALIZING DEVICE OF SPEED CHANGE RATIO  
CONTROL DEVICE FOR CONTINUOUSLY VARIABLE  
TRANSMISSION  
Publication Date: June 3, 1997  
Application Number: JP07-321245 November 16, 1995  
IPC: F16H 61/02, F16H 9/00 //F16H 59:38, F16H 59:44,  
F16H 59:68  
Applicant: NISSAN MOTOR CO LTD

The applicants have reviewed the reference and provide the following statement  
of relevance:

This reference discloses the means to improve fuel consumption when an action of departure from stopping of a car is performed in a short time, eliminate a feeling of physical disorder, and improve comfortableness to ride in by adjusting an angle position of a step motor so that an angle position command value of the step motor and an angle position of the step motor coincide with each other.

A control unit inputs signals of an engine rotating speed sensor 301, a vehicle speed sensor 302, a throttle opening sensor 303, a shift position switch 304, a turbine rotating speed sensor 305, an engine cooling water temperature sensor 306, an idle switch 307 and a changeover detecting switch 298, and calculates an angle position command value of a step motor. A step motor angle position adjusting part 480 performs a speed limit or the like by considering performance of the step motor 110 on a step motor control signal to drive the step motor 110 so that an angle position command value of the step motor and an angle position of the step motor 110 coincide with each other, and outputs it.

2. Japanese Patent Application (Laid-open - Kokai) JP11-082701  
Title: CHANGE GEAR RATIO CONTROL DEVICE OF  
CONTINUOUSLY VARIABLE TRANSMISSION  
Publication Date: March 26, 1999  
Application Number: JP09-234604 August 29, 1997  
IPC: F16H 61/02 //F16H 59:70, F16H 63:06  
Applicant: NISSAN MOTOR CO LTD

The applicants have reviewed the reference and provide the following statement of relevance:

This reference discloses the means to control a change gear ratio accurately by restraining the shift between an estimated opening amount and the actual opening amount of a shift control valve, while compensating the external disturbance such as the power swing of a step motor.

This device is provided with a target change gear ratio calculation part 410 for setting the target change gear ratio of a continuously variable transmission in response to a vehicular operation state, a real change gear ratio calculation part 430 for detecting a real change gear ratio, an external disturbance compensation means for calculating a change gear ratio order value based on the target change gear ratio so as to be a prescribed dynamic characteristic by compensating the external disturbance added to the continuously variable transmission and a step motor angle position adjusting part 510 for driving the step motor so that the actual change gear ratio is matched with the change gear ratio order value. In an opening direction calculation part 460, an opening amount of the shift control valve is calculated estimatingly from the change gear ratio order value after the compensation of the external disturbance and the change gear ratio order value before the compensation of the external disturbance and in a control subject

dynamic characteristic calculation part 470, a time constant for deciding the dynamic characteristic is changed based on the estimation value of this opening amount.

3. Japanese Patent Application (Laid-open - Kokai) JP2001-116131  
Title: APPARATUS FOR INITIALIZING SPEED CHANGE CONTROL SYSTEM OF CONTINUOUSLY VARIABLE TRANSMISSION  
Publication Date: April 27, 2001  
Application Number: JPI1-295309 October 18, 1999  
IPC: F16G 61/02, F16H 9/00 //F16H 59:72, F16H 63:06  
Applicant: NISSAN MOTOR CO LTD

The applicants have reviewed the reference and provide the following statement of relevance:

This reference discloses the means to prevent troubles such as stepping out resulting from an illegal combination of the driving speed and the driving pattern of a stepping motor which match oil temperature during initialization.

Oil temperature is measured in 21, and a stepping motor driving speed is determined in accordance with the oil temperature in 22 and the oil temperature is recalculated in 23. In 24, the oil temperature in 23 is checked to see whether it is normal or low; when it is low, a pattern for low temperature is selected as the stepping motor driving pattern in 25; when it is normal, a pattern for normal temperature is selected in 26. In 27, the driving patterns selected in 25 or 26 are sequentially output in a cycle that matches the driving speed determined in 22. In 28, 27 is repeated until initialization of the stepping motor is

determined to be complete, so as to advance initialization. When initialization is complete, stepping motor driving control for a normal shift mode is performed in 29. Hence, during initialization the stepping motor driving speed and the driving pattern are held respectively at the driving speed determined in 22 at the start of initialization and at the driving pattern determined in 25 or 26, also at the start of initialization.

Respectfully submitted,

Tateki JOZAKI et al.

By:



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#### Attachments

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DEC 23 2003

Form PTO-149  
(Modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.  
000560.00125

SERIAL NO.  
10/670,393

# **LIST OF REFERENCES CITED BY APPLICANT**

APPLICANT Tateki JOZAKI et al.

FILING DATE  
September 26, 2003

GROUP  
Unassigned

## **U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOC. NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
	AL						
	AM						
	AN						

## **FOREIGN PATENT DOCUMENTS**

		DOC. NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	AO	JP09-144861	3 June 1997	Japan	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	AP	JP11-082701	29 August 1997	Japan	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	AQ	JP2001-116131	27 April 2001	Japan	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	AR				<input type="checkbox"/>	<input type="checkbox"/>
	AS				<input type="checkbox"/>	<input type="checkbox"/>
	AT				<input type="checkbox"/>	<input type="checkbox"/>
	AU				<input type="checkbox"/>	<input type="checkbox"/>
	AV				<input type="checkbox"/>	<input type="checkbox"/>

## **OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)**

	AW	
	AX	
	AY	
	AZ	

Examiner

Date Considered

\*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.